



## CITY OF LODI COUNCIL COMMUNICATION

**AGENDA TITLE:** Adopt Resolution Authorizing Additional Task Order with West Yost Associates for Fiscal Year 2010/11 to Provide Permit Assistance and Prepare Various Studies Required by City's Wastewater Discharge Permit (\$284,400)

**MEETING DATE:** August 4, 2010

**PREPARED BY:** Public Works Director

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**RECOMMENDED ACTION:** Adopt a resolution authorizing an additional task order with West Yost Associates for Fiscal Year 2010/11 to provide permit assistance and prepare various studies required by the City's wastewater discharge permit in the amount of \$284,400.

**BACKGROUND INFORMATION:** The City's wastewater discharge permit, issued by the State Central Valley Regional Water Quality Control Board (Board), includes requirements for a number of studies to be conducted and plans or reports to be developed on various aspects of the City's wastewater treatment operations. On November 4, 2009, Council authorized West Yost Associates (WYA) to continue preparing ongoing studies required by the permit along with assistance in meeting permit compliance requirements. The FY 2010/11 work scope and fee reflected in the attached proposal (Exhibit A) is a continuation of the permit assistance tasks that were approved by Council on November 4, 2009. It should be noted the annual costs for the FY 2010/11 permit assistance is approximately \$120,000 less than last year, as the bulk of the required studies are nearing completion.

WYA has furnished the City with a combined proposal to respond to the permit requirements scheduled for FY 2010/11, including assisting City staff in regulatory program management.

The following includes a brief description of the permit-required tasks for this fiscal year; a more detailed description is included in the attached proposal.

Task 1: Project Management – This task includes ongoing project management-related activities, including general project coordination (\$14,700).

Task 2: State Board Petition Support – This task provides support to the City in negotiating the appropriate permit modifications with the Board under the Regulatory Program Management Task (Task 4). This task is complete and will not require additional scope or budget (now or in the future). Assistance on this task will be covered in Task 4 - Regulatory Program Management (\$0).

Task 3: San Joaquin Valley Air Pollution Control District Biosolids Rule Compliance – This task provides assistance in obtaining a variance to Biosolids Operations Rule 4565 (\$10,700).

Task 4: Regulatory Program Management – This task includes meetings and coordination efforts with the Board regarding permitting issues. This task also involves guidance related to new regulatory requirements associated with the current permit (\$30,800).

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APPROVED:

Konrad Bartlam, Interim City Manager

Task 5: Land Application Monitoring Coordination – This task includes coordinating development of the City's monthly land application reports and the costs associated with the permit-required agronomist's review and certification (\$26,200).

Task 6: Compliance Studies – This task includes efforts needed to complete the Board-required Corrective Action/Method of Compliance Work Plan, Pollution Prevention Plan and Treatment Feasibility Study. These studies are required of all dischargers that receive permit compliance schedules for new effluent limitations (\$19,500).

Task 7: Toxicity Reduction Evaluation (TRE) – Though not expected, this task is to respond to a Board-required TRE in the event of a toxicity exceedence. TRE's are very time sensitive and require an intricate series of steps that are dependent on the outcome of initial findings. If a TRE is not needed, the budget for this item will not be expended (\$94,100).

Task 8: Title 22 Engineering Report – This task includes completion of a Title 22 Engineering Report. A draft report, due November 2009, was submitted to the Board and the Department of Public Health and is currently under review. Title 22 Reports are required for all treatment plants that supply recycled water for other than agricultural purposes (\$13,200).

Task 9: Wintertime Irrigation Management Plan – Since approximately one-half of the City's land application areas are located within the 100-year flood plain of the Delta, this plan is required to minimize potential for winter flooding events to wash out biosolids from the land application areas to the Delta. This plan was completed in December 2008. There are no direct actions needed to document implementation. This task is complete and will not require additional scope or budget (\$0).

Task 10: Temperature Study – This task includes implementation of the Temperature Study Work Plan approved June 2008. The purpose of this permit-required study is to establish receiving water temperature limitations that are protective of the beneficial uses (specifically aquatic life uses) identified for the receiving water (Dredger Cut). This study was initiated in July 2008, and the final report was submitted in June 2010. The Study shows there is minimal effect on receiving water temperatures, therefore, no future requirements are anticipated. This task is complete and will not require additional scope or budget now or in the future (\$0).

Task 11: Industrial Influent Characterization Study – This task includes implementation of the Industrial Characterization Work Plan approved June 2008. This permit-required study is intended to characterize the wastewater influent collected by the industrial sewer system over a two-year period through quarterly influent monitoring. The data collected will be reviewed and submitted in a final report by November 2010 followed by a progress report by February 2011 (\$20,800).

Task 12: Pond Freeboard Evaluation Study – This permit-required study is intended to evaluate the stability of the storage pond berms and to identify if a need exists to implement mitigation or control measures that may be necessary to prevent undesirable risks associated with berm failure or overtopping. This study work plan was approved by the Regional Board in July 2009 and the final report is due by August 2011 (\$12,500).

Task 13: Salinity Evaluation and Minimization Plan – This task includes implementation of the Salinity Evaluation and Minimization Plan that is required of all municipal dischargers of one million gallons per

day or more in the Central Valley and is intended to identify and reduce sources of salinity in the City's domestic and industrial effluent (\$3,700).

Task 14: Background Groundwater Quality and Degradation Assessment Study – This permit-required study will be implemented in accordance with the Background Monitoring Well Work Plan approved June 2008 and is intended to establish local background groundwater conditions in an effort to quantify the threat to groundwater quality associated with the City's land application practices. The study is due on August 1, 2010. Preliminary findings are outlined in the proposal (\$38,200).

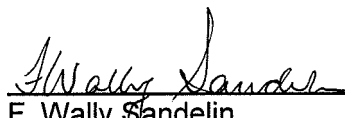
Task 15: Effluent Characterization Study – This task involves the completion of the Characterization Study Work Plan. The Work Plan outlines quarterly monitoring that is to take place between the third quarter of 2010 and the second quarter of 2011. This task will not require budget for this fiscal year (\$0).

The estimated cost for the work described above is \$284,400.

**FISCAL IMPACT:** The studies' monitoring efforts are required in the City's permit and nonperformance would subject the City to significant fines. The costs associated with this work have been anticipated in the City's Wastewater funding requirements.

<b>FUNDING AVAILABLE:</b>	Wastewater Operating Fund (170403)	\$255,000
	Wastewater Capital Fund (172028)	<u>\$ 29,400</u>
	Total	\$284,400

  
for Jordan Ayers  
Deputy City Manager/Internal Services Director

  
F. Wally Sandelin  
Public Works Director

FWS/CS/dsg

Attachment



July 1, 2010

Mr. Charles E. Swimley, Jr.  
Water Services Manager  
City of Lodi  
1331 South Ham Lane  
Lodi, CA 95242

SUBJECT: Proposal for Engineering Services—NPDES Permit Assistance for  
Fiscal Year 2010/2011

Dear Mr. Swimley:

West Yost Associates (West Yost) appreciates the opportunity to present to you this letter proposal for engineering services related to ongoing assistance to the City of Lodi (City) in meeting the NPDES permit requirements for the Lodi Water Pollution Control Facility (WPCF).

The Regional Water Quality Control Board (Regional Board) adopted the final NPDES permit and associated Time Schedule Order (TSO) for the City's WPCF on September 14, 2007. The scope of work presented in this proposal includes the development of most of the NPDES permitting submittals that are anticipated beginning in August 2010 and continuing through the end of July 2011 (hereinafter referred to as Fiscal Year 2010/2011, or FY 10/11). Note that the permit requires the submission of a Pollution Prevention Plan Report on September 9, 2010. However, the development of this report will primarily occur during June and July 2010 under the existing FY 09/10 Permit Assistance contract.

This proposal assumes that the City staff will complete all of the necessary monitoring needed to achieve the objectives of the tasks outlined in the Scope of Work, and that the City will contract directly with a certified laboratory for the completion of any necessary analytical efforts. Under the Regulatory Program Management task, West Yost will provide support for coordinating these efforts with other regulatory needs.

### Scope of Work

The following scope of work defines the detailed engineering service tasks related to ongoing assistance to the City in meeting the NPDES permit compliance requirements for the Lodi WPCF. These tasks include the following:

- Task 1: Project Management
- Task 2: State Board Petition Support
- Task 3: SJVAPCD Biosolids Rule Compliance

- Task 4: Regulatory Program Management
- Task 5: Land Application Monitoring Coordination
- Task 6: Compliance Studies (Method of Compliance Work Plan, Pollution Prevention Plan and Treatment Feasibility Study)
- Task 7: Toxicity Reduction Evaluation
- Task 8: Title 22 Report
- Task 9: Wintertime Irrigation Management Plan
- Task 10: Temperature Study
- Task 11: Industrial Influent Characterization Study
- Task 12: Pond Freeboard Study
- Task 13: Salinity Evaluation and Minimization Plan
- Task 14: Background Groundwater Quality and Degradation Assessment Study
- Task 15: Effluent and Receiving Water Characterization Study

### **Task 1. Project Management**

Task 1 includes project management related activities including general project coordination. In addition, to ensure continued achievement of consistently high quality work products, and in accordance with the West Yost Quality Assurance/Quality Control (QA/QC) policy, a West Yost staff member at the Principal Engineer level or higher will review significant work products. Under this task, brief descriptions of services performed will be included on monthly invoices.

The efforts needed during FY 10/11 under this task can only be estimated at this time, and the associated fee estimate presented in this letter proposal is based on West Yost's knowledge of the City's current permitting concerns. If the proposed budget is not expended in the timeframe anticipated for this scope of services, it can be directed toward the completion of other efforts.

### **Task 2. State Board Petition Support**

The State Water Resources Control Board (SWRCB) recently adopted an Order that remanded the City's permit back to the Regional Board for reconsideration of the Title 27 exemption applicable to the WPCF storage ponds and land application area. West Yost will provide support to the City in negotiating the appropriate permit modifications with the Regional Board under the Regulatory Program Management Task (Task 4). Therefore, this task is complete and will not require additional scope or budget (now or in the future). The following paragraphs provide a summary of the potential modifications to the City's permit that could be associated with the State Board Order.

A permit was issued for the City of Manteca's Wastewater Quality Control Facility, which has a storage and reuse system that is similar to the City of Lodi, following the adoption of the SWRCB Order. The Title 27 exemption findings presented in this permit provide guidance on what can be expected in a modification of the City of Lodi's permit. It should be noted, however, that the Title

27 findings in the Manteca permit were contested both by the City of Manteca and by the California Sports Fisherman Alliance (CSPA). Therefore, the SWRCB will consider whether the Regional Board accurately applied the Title 27 exemptions in the Manteca permit. It is expected that the Regional Board will await the results of this process prior to modifying the City of Lodi's permit to address the State Board Order.

### **Tasks 3. SJVAPCD Biosolids Rule Compliance**

In March 2007, the San Joaquin Valley Air Pollution Control District (SJVAPCD) adopted Biosolids Operation Rule 4565. This rule requires that the City implement additional controls for Volatile Organic Carbon (VOC) emissions from the City's biosolids land application practices by incorporating the biosolids into the soil within 24 hours of application. The City will not be able to comply with the SJVAPCD Biosolids Operation Rule because the City applies liquid biosolids to previously planted crops, which would be destroyed during "incorporation". Therefore, the City will need to work with SJVAPCD staff to identify a compliance strategy and timeline that can be incorporated into a temporary variance.

The purpose of this task to provide assistance to the City, in obtaining a variance to Biosolids Operation Rule 4565 (if needed). Additional efforts are assumed to not be needed at this time. The actual level of effort is uncertain. Therefore, a nominal fee has been assumed for this task. All work will be performed on a time and material basis. Monthly invoices will detail the efforts and costs. However, depending on the level of effort required, a scope and budget amendment may be necessary in the future.

**Deliverable: SJVAPCD Variance Request Document, if needed.**

### **Task 4. Regulatory Program Management**

West Yost anticipates that the City will continue to require ongoing assistance related to understanding general regulatory compliance issues and implementing the measures needed to achieve compliance. It is difficult to predict the level of effort needed for this task. Assistance under this task is anticipated to include one or more of the following items:

- 1) Working with City staff to understand the permit compliance requirements;
- 2) Maintaining and updating the attached implementation schedule for the compliance measures;
- 3) Developing presentations for City staff, Council, and/or other consultants outlining the regulatory compliance concerns;
- 4) Providing support to the City and the Regional Board in developing permit revisions in response to the recent SWRCB permit remand, modifying the land application organic loading limit in accordance with the recently completed Organic Loading Study, and modifying the effluent temperature requirements in accordance with the Temperature Study;
- 5) Reviewing permits and other regulatory guidance documents issued by the Regional Board and SWRCB that would be applicable to the WPCF;
- 6) Providing assistance to the City, as needed, for developing responses to Regional Board requests;

- 7) Providing assistance in developing semi-annual permit compliance progress reports (Due February 1, 2011 and August 1, 2011);
- 8) Coordinating efforts between all the studies and other planning-related issues;
- 9) Helping the City to develop monitoring programs;
- 10) Completing analyses of regularly collected monitoring data to identify potential future regulatory concerns;
- 11) Providing support to the City and the PCP Cannery in addressing food processing waste disposal issues; and/or
- 12) Attending and preparing for meetings to discuss the results of such activities outlined above.

The specific work efforts and deliverables under this task cannot reasonably be determined at this time, and the associated fee estimate presented in this letter proposal is based on West Yost's knowledge of the City's current permitting concerns. All work will be performed on a time and material basis, and monthly invoices will detail the efforts and costs. Depending on the level of effort required, a scope and budget amendment may be necessary in the future. If the estimated fee is not expended in the timeframe anticipated for this scope of services, it may be directed toward the completion of other efforts. These tasks may also require support from our legal subconsultant, Somach, Simmons and Dunn (SSD), and a small budget has also been assumed for these efforts.

It will be critical that the City's regulatory compliance efforts are completed in coordination with Regional Board staff and other regulatory authorities. It is imperative that these agencies are in agreement with the study approach and the type and amount of information to be obtained from any given study. Therefore, this task also involves the participation of West Yost staff and our subconsultants, as needed, in meetings with the appropriate regulatory agency staff. Meetings that may be required are as follows:

- Meeting with Department of Public Health (DPH) staff to discuss the draft Title 22 Engineering Report (meeting date depends on DPH review of draft report).
- Meeting with Regional Board staff to discuss the results of the Background Groundwater Report and need for a BPTC Study (September 2010).
- Meeting with Regional Board staff to discuss the permit revisions needed to: modify the permit in response to the SWRCB remand; modify the land application organic loading limit in accordance with the recently completed Organic Loading Study; modify the effluent temperature requirements in accordance with the Temperature Study; modify the permit with respect to Title 22 requirements for discharges to SJC Mosquito District ponds; modify the permit to allow an increase in the effluent discharge flow rates to 8.5 mgd (December 2010/January 2011).
- Meeting with Regional Board to discuss the Pond Freeboard Study (July 2011).

Other coordination meetings are also anticipated to be required.

Deliverables: 1) Meeting Agenda and notes for up to five meetings with the City, the Regional Board and/or other regulatory authorities regarding the acceptability of the proposed Work Plans and other regulatory matters. 2) Administrative Draft February 2011 Semi-Annual Progress Report (Temperature Study, Industrial Influent Characterization Study, Background Groundwater Quality and Degradation Assessment) for City Review. Final February 2011 Semi-Annual Progress Report for Regional Board Consideration. 3) Administrative Draft August 2011 Semi-Annual Progress Report (Pollution Prevention Plan, Salinity Evaluation and Minimization Plan, Corrective Action Plan/Treatment Feasibility Study) for City Review. Final August 2011 Semi-Annual Progress Report for Regional Board Consideration.

The administrative draft reports will be distributed in PDF format for review. Up to six (6) Bound copies of the revised version of the reports will be distributed to the Regional Board and City staff.

### **Task 5. Land Application Monitoring Coordination**

This task involves providing the following items:

- Review the 2010 land application monitoring data and help with development of the required 2010 Annual Cropping and Irrigation Report and the 2010 Annual Biosolids Application Report;
- Review of the monthly land application reports; and
- Coordination with City staff and tenant farmers regarding collection of required monitoring data during the 2011 irrigation season.

Deliverables: Administrative Draft 2010 Annual Land Management Report and 2010 Annual Biosolids Application Report. Final 2010 Annual Land Management Report and 2010 Annual Biosolids Application Report. The administrative draft reports will be distributed in PDF format for review. Up to six (6) Bound copies of the revised version of the reports will be distributed to the Regional Board and City staff.

### **Task 6. Compliance Studies**

The following compliance studies are required under the new NPDES permit:

- Corrective Action Plan/Method of Compliance Work Plan
- Pollution Prevention Plan
- Treatment Feasibility Study

This task includes the efforts that will need to be completed for these studies during FY 10/11.

#### Subtask 6.1. Corrective Action Plan/Method of Compliance Work Plan

West Yost completed the Method of Compliance Work Plan (MOC Work Plan) in April 2008. Approval of the MOC Work Plan was provided by the Regional Board in a letter dated June 26, 2008. Implementation of the Work Plan requires support that will be provided under the Regulatory Program Management Task (Task 4), including the submittal of an Annual Progress Report on August 1, 2011, which will detail the progress that has been made toward achieving compliance. Therefore, this subtask is complete and is will not require additional scope or budget (now or in the future).



### Subtask 6.2. Pollution Prevention Plan

West Yost completed the Pollution Prevention Plan Work Plan (PPP Work Plan) on behalf of the City in April 2008. Per Regional Board request, an addendum to the PPP Work Plan and an Initial Manganese PPP Study was submitted in August 2008. Approvals of these documents were provided by the Regional Board in a letter dated September 9, 2008. In accordance with the City's permit, a final PPP report is due to the Regional Board two years following approval of the Work Plan, which is September 9, 2010. An administrative draft of the PPP Report will be provided to the City for review and comment by July 31, 2010, and development of this draft will be completed under the existing FY 09/10 Permit Assistance contract.

The scope for this subtask during FY 10/11 includes incorporation of City comments and finalization of the PPP Report. The only other remaining efforts for this subtask will be completed under the Regulatory Program Management Task (Task 4), which includes the submittal of an Annual Progress Report on August 1, 2011 detailing additional progress that has been made toward implementation of the PPP. Therefore, this subtask is complete and will not require additional scope or budget (now or in the future).

### Task 6.3. Treatment Feasibility Study

West Yost completed the Treatment Feasibility Study Work Plan (TFS Work Plan) on behalf of the City in October 2008. Approval of the TFS Work Plan was provided by the Regional Board in a letter dated July 13, 2009. The NPDES permit provides the City with a two year timeline to complete the TFS Report from when the TFS Work Plan is approved by the Executive Officer. Therefore, this report is due July 2011.

The TFS Work Plan describes the efforts that will be completed by the City to examine the feasibility, costs and benefits of different treatment options that may be required to remove aluminum, ammonia, chlorodibromomethane, and dichlorobromomethane from the discharge. Specifically, the TFS Work Plan stated that the City will rely on data that are collected under the permitted Monitoring and Reporting program to verify that the compliance objectives have been met following the completion of the recent WPCF upgrade project. Note that this monitoring will also be used to support the City's request for a flow increase to 8.5 million gallons per day.

To facilitate the timely modification of the permit to allow for this flow increase, it is proposed that the TFS Report will be completed by November 2010. An administrative draft TFS Report will be issued to the City for review and revision prior to submission of a draft report to the Regional Board staff for review.

**Deliverables:** Administrative Draft TFS Report for City Review; and a Final TFS Report for Regional Board staff review. The administrative draft report will be distributed in PDF format for review. Up to six (6) bound copies of the revised version of the report will be distributed to the Regional Board and City staff.

## **Task 7. Toxicity Reduction Evaluation**

Roberson-Bryan Inc (RBI), in association with West Yost, completed the Toxicity Reduction Evaluation Work Plan (TRE Work Plan) in January 2008. Approval of the TRE Work Plan was provided by the Regional Board in a letter dated June 26, 2008. Implementation of the TRE Work Plan will only be required should the WPCF exceed the TRE trigger outlined in the NPDES

permit. This requirement applies to all NPDES dischargers. As detailed in the TRE Work Plan, the major items that may need to be included under a TRE are as follows:

- Whole Effluent Toxicity Testing Bioassay Evaluation;
- Information and Data Acquisition;
- Facility Operations and Performance Evaluation;
- Preparation of a Final TRE Action Plan;
- Toxicity Identification Evaluation (TIEs);
- Toxicity Source Evaluation and Control; and/or
- Preparation of a TRE Report.

The efforts needed during FY 10/11 are based on the assumption that the City will need to implement a Toxicity Reduction Evaluation (TRE) as presented in the TRE Work Plan. However, if the City's monitoring does not demonstrate toxicity in the WPCF effluent, a TRE will not be necessary. If the fee outlined in this letter proposal is not expended in the timeframe anticipated for this scope of services, the budget can be directed toward the completion of future efforts at the City's direction. On the other hand, the amount of services needed to complete a TRE cannot be accurately predicted at this time because the amount of effort needed for key steps in the process, and even the sequential steps in the process itself, are largely dictated by the outcome of the bioassays and the Toxicity Identification Evaluations (TIEs).

The TIE may or may not initially be effective in identifying the constituent causing the toxicity that then needs to be controlled and initial TIE success can have a significant impact on costs. These outcomes cannot be known at this time. The amount of services needed for facility operations and performance evaluation is also dependent upon the amount of this task completed by City staff, which will likely be dependant on the timing and frequency of the toxicity exceedances. Therefore, the scope of work for this task is limited to the budget allocated in this letter proposal. In the event that a TRE requires services beyond that scoped and budgeted herein, West Yost would, upon request, submit a separate proposal for additional services. The budget also assumes that the City will contract directly with the bioassay laboratory for all TRE bioassay and TIE analytical work.

Finally, because TREs are an intricate series of steps and assessments over time, with the exact nature of activities in latter tasks largely dictated by the outcome and findings in the initial tasks, the proper and efficient conducting of a TRE requires extensive technical oversight, coordination, and direction. Therefore, this task provides budget for such services as well as miscellaneous services provided during the TRE process not specifically covered under other the specific TRE items listed above.

Given their expertise, RBI would serve as the technical lead for this work. However, West Yost will provide support and coordination in completing these efforts. Coordination meetings required in FY 10/11 in support of completing this task will be covered under the Regulatory Program Management Task (Task 4) described above.

### **Task 8. Title 22 Engineering Report**

West Yost completed the Title 22 Engineering Report Work Plan (Title 22 Work Plan) in April 2008. Approval of the Title 22 Work Plan was provided by the Regional Board in a letter dated June 18, 2008. The Draft Title 22 Engineering Report was submitted to the Regional Board and DPH on November 3, 2009. The City has coordinated with Regional Board staff on this report, and received no comments. The City is currently awaiting input and approval from DPH.

The scope of work during FY 10/11 will involve development of a Final Title 22 Report that incorporates DPH comments. In accordance with the WDRs, the Final Title 22 Report will be provided within six (6) months of “approval” of the Draft Title 22 Report. An administrative draft of the Final Title 22 Report will be issued to the City for review and revision prior to submission of the Final Title 22 Report to the Regional Board and DPH. The Regional Board and DPH coordination meetings, as well as coordination with the City to implement the Title 22 recommendations, that are needed in support of completing this task during FY 10/11 will be covered under the Regulatory Program Management Task (Task 4) described above.

**Deliverables:** Final Title 22 Engineering Report. An administrative draft version of the Final report will be distributed in PDF format for City review. Up to eight (8) bound copies of the Final Report will be distributed to the Regional Board, DPH, and City staff.

### **Task 9. Wintertime Irrigation Management Plan**

West Yost completed the Wintertime Irrigation Management Plan in December 2008. This document described the actions that will be taken by the City to minimize potential water quality impacts during flooding events that would cause washout of wastewater or biosolids from the land application area. There are no direct actions needed to document implementation of the Wintertime Irrigation Management Plan. Therefore, this task is complete and will not require additional scope or budget (now or in the future).

### **Task 10. Temperature Study**

RBI, in association with West Yost, completed the Temperature Study Work Plan for the White Slough WPCF Effluent and Downstream Water Bodies (Temperature Study Work Plan) in April 2008. Approval of the Temperature Study Work Plan was provided by the Regional Board in a letter dated June 26, 2008. The Temperature Study was initiated on July 22, 2008. In accordance with the WDRs, the Temperature Study must be complete within two years of initiation, and a final study report is due within 90 days of completion of the study. The study was completed April 1, 2010, and the final report was submitted to the Regional Board on June 30, 2010.

It is anticipated that the permit will be modified to incorporate the recommendations provided in this report. Regional Board coordination meetings required over the next twelve months in support of completing this task will be covered under the Regulatory Program Management Task (Task 4) described above. Therefore, this task is complete and will not require additional scope or budget (now or in the future).

### **Task 11. Industrial Influent Characterization Study**

West Yost completed the Industrial Influent Characterization Study Work Plan (Industrial Characterization Work Plan) in April 2008. Approval of the Industrial Characterization Work Plan was provided by the Regional Board in a letter dated June 26, 2008. In accordance with the City's NPDES permit, the Industrial Characterization will occur over a two-year period, and a final report is due no more than 90 days following completion of the study. The study began in August 2008 and will end in August 2010, with the final report due November 2010.

The scope of work during FY 10/11 includes the development of an administrative draft Industrial Characterization Report that will be issued to the City for review and revision prior to submission of a final Industrial Characterization Report to the Regional Board staff for review. The City will also need to submit a Progress Report on February 1, 2011, for which assistance will be provided under the Regulatory Program Management Task (Task 4).

**Deliverables:** Administrative Draft Industrial Characterization Report for City Review; and a Final Industrial Characterization Report for Regional Board staff review. The administrative draft report will be distributed in PDF format for review. Up to six (6) bound copies of the revised version of the report will be distributed to the Regional Board and City staff.

### **Task 12. Pond Freeboard Evaluation Study**

Wallace-Kuhl & Associates (WKA), in association with West Yost, completed the City of Lodi Pond Study Geotechnical Engineering Work Plan and Implementation Schedule (Pond Study Work Plan) in October 2008. Approval of the Pond Study Work Plan was provided by the Regional Board in a letter dated July 13, 2009. In accordance with the City's NPDES permit, the Pond Freeboard Evaluation will occur over a two-year period, and a final report is due no more than 90 days following completion of the study. The field efforts for this study occurred November 12<sup>th</sup> to 13<sup>th</sup> 2009. Continued monitoring of groundwater levels is scheduled to occur over an 18 month period following the completion of these initial field efforts and should be complete by May 2011. The final report will therefore be due by August 2011.

The scope of work for West Yost/WKA team during FY 10/11 includes completion of the data evaluation efforts and the development of an administrative draft Pond Freeboard Study Report that will be issued to the City for review and revision. The scope will also include development and submission of a final Pond Freeboard Report to the Regional Board staff for review.

**Deliverables:** Administrative Draft Pond Freeboard Report for City Review; and a Final Pond Freeboard Report for Regional Board staff review. The administrative draft report will be distributed in PDF format for review. Up to six (6) bound copies of the revised version of the report will be distributed to the Regional Board and City staff.

### **Task 13. Salinity Evaluation and Minimization Plan**

The Salinity Evaluation and Minimization Plan was submitted to the Regional Board on October 30, 2008. The Regional Board Executive Officer approved this Plan on September 29, 2009. The City must provide annual reports (due on August 1) demonstrating reasonable progress in the reduction of salinity in its discharge to Dredger Cut and the Agricultural Fields. West Yost efforts under this task will be to develop the salinity data documentation that will need

to be included in the August 2011 Annual Progress Report (completed under the Regulatory Program Management Task).

Deliverables: Documentation of the City's 2010/2011 Salinity Evaluation and Minimization activities for inclusion in the August 2011 Semi-Annual Progress Report. August 2011 Semi-Annual Progress Report will be provided under Task 4.

#### **Task 14. Background Groundwater Quality and Degradation Assessment Study**

West Yost completed the revised Background Monitoring Well Installation Work Plan (Monitoring Well Work Plan) in May 2008. The Regional Board approved this Work Plan on June 4, 2008. In accordance with the Monitoring Well Work Plan, three "background" monitoring wells were installed in December 2008. In accordance with the WDRs, a Background Groundwater Quality Characterization Report is due by August 1, 2010, and development of this report will be completed under the existing FY 09/10 Permit Assistance contract.

Due largely in part to a number of recent WPCF improvements, it is expected that the Background Groundwater Quality Report will demonstrate that the City's practices do not cause onsite groundwater concentrations in most of the City's wells to exceed background groundwater quality for many constituents (including nitrate, electrical conductivity and total dissolved solids). Therefore, for these combinations of wells and constituents no additional efforts are expected to be needed to demonstrate that an exemption from Title 27 is appropriate.

However, it is expected that the Background Groundwater Quality Report will show that the water quality in *some* of the WPCF onsite wells have concentrations of a few constituents that are statistically greater than background water quality (i.e. boron in most wells; chloride, sodium, and dissolved manganese in the wells located near the Delta margin; and nitrate in one well within the land application area). Given this potential for elevated levels in some of the onsite wells, it is expected the City will need to submit a Best Practicable Treatment and Control Evaluation Work Plan (BPTC Work Plan) by December 1, 2010 in accordance with the WDRs.

The BPTC Work Plan will need to include a preliminary evaluation of each component of the WPCF waste management system to evaluate consistence with the Basin Plan. Some degradation of groundwater is consistent with the Basin Plan (and therefore exempt from Title 27 requirements) provided that:

- 1) The degradation is limited in extent;
- 2) The degradation after effective source control, treatment, and control is limited to waste constituents typically encountered in municipal wastewater as specified in the groundwater limitations in this Order;
- 3) The Discharger minimizes the degradation by fully implementing, regularly maintaining, and optimally operating best practicable treatment and control (BPTC) measures; and
- 4) The degradation does not result in water quality less than that prescribed in the Basin Plan (i.e. the Water Quality Objectives shown in the table provided on pages 15 and 16 of the WDRs).

Therefore, if it can demonstrated in the BPTC Work Plan that the City's practices are not causing groundwater to exceed the criteria prescribed in the Basin Plan for the constituent(s) in question,

then it is likely that the preconditions for an exemption from Title 27 will be satisfied and additional BPTC efforts would not be needed for those constituents.

However, for any constituent exceeding background, if it is concluded that the City's practices may be causing an exceedance of the groundwater criteria prescribed in the Basin Plan, the BPTC Work Plan will need to set forth a scope and schedule for completing a Comprehensive BPTC Technical Evaluation Report. The purpose of the Comprehensive BPTC Technical Evaluation Report is to define the additional BPTCs that will be implemented at the WPCF to control the discharge of constituents that exceed both background levels and the applicable Basin Plan criteria. Appropriate modifications may include, but are not necessarily limited to: elimination of "untreated" waste streams from the City's industrial sewer system; lining of the storage ponds; reduction and/or elimination of biosolids applications; and increased control of biosolids applications by providing dewatering and spreading using trucks.

The schedule to complete the Comprehensive BPTC Technical Evaluation Report is not specifically defined in the WDRs, but "shall be as short as practicable." The WDRs also require the completion of any necessary BPTC modifications within four years of the Executive Officer's approval of the Comprehensive BPTC Technical Evaluation Report.

As noted above, the City has recently made significant modifications/improvements to the existing conveyance and disposal system to improve water quality, so any recommendations for additional controls must consider the benefits of these changes. Some improvements to groundwater quality have already been observed. However, given the slow movement of groundwater in the area, it could take several years to observe the full benefits of these improvements. West Yost will work with the City and Regional Board staff to define an appropriate schedule for completing the Comprehensive BPTC Technical Evaluation that allows the time needed to assess these benefits. Nevertheless, it is expected for purposes of this proposal that the Comprehensive BPTC Technical Evaluation Report (if necessary) will not be completed during FY 10/11.

Finally, if it is determined that additional BPTCs are needed to reduce concentrations of one or more constituents in the onsite wells below background levels, the City would likely need to complete these BPTC improvements (or possibly demonstrate that attenuation is occurring) before the preconditions for a Title 27 exemption are satisfied. In this case, the Regional Board would likely adopt an enforcement order that provides a timeline to complete the BPTC improvements needed to protect groundwater quality. The timeline provided should be conformance with the timeline recommended in the BPTC Work Plan

West Yost efforts during FY 10/11 will include the following tasks:

- Subtask 14.1 BPTC Study Support
- Subtask 14.2 Quarterly Monitoring Report Support



#### Subtask 14.1. BPTC Study Support

The scope of work during FY 10/11 includes the development of an administrative draft BPTC Work Plan that will be issued to the City for review and revision prior to submission of a final BPTC Work Plan to the Regional Board staff for review.

The City will also need to submit a Progress Report on February 1, 2011, for which assistance will be provided under the Regulatory Program Management Task (Task 4).

**Deliverables:** Administrative Draft BPTC Study Work Plan for City Review; and a Final BPTC Study Work Plan for Regional Board staff review. The administrative draft report will be distributed in PDF format for review. Up to six (6) bound copies of the revised version of the report will be distributed to the Regional Board and City staff.

#### Subtask 14.2. Quarterly Report Support

Groundwater samples are collected and analyzed from the City's monitoring wells on a quarterly basis in accordance with the Monitoring and Reporting Program included in the City's permit. West Yost anticipates that the City staff will complete all of the sample collection efforts required during FY 10/11. West Yost also assumes that the City will contract directly with the analytical laboratory for the sample analysis.

Under this subtask, West Yost will develop statistical analyses of the collected data to determine if the water quality in the onsite wells exceeds the background concentrations. Constituents exceeding background will be identified and graphed for each site monitoring well to assess concentration trends over time. In addition, West Yost will develop contour maps using the water level data collected by the City.

**Deliverables:** Tables and/or charts depicting statistical analyses to be included in the Quarterly Reports. Figures depicting the contour information to be included in the Quarterly Reports.

### **Task 15. Effluent and Receiving Water Characterization**

A Work Plan for the completion of an Effluent and Receiving Water Characterization Study (Characterization Study Work Plan) was submitted on March 14, 2010. The Characterization Study Work Plan describes the monitoring program that will be completed by the City to ensure adequate data is available to develop the City's next permit. In accordance with the Characterization Study Work Plan, quarterly monitoring will be completed between the fourth quarter of 2010 and the third quarter of 2011. Most of the data collected under this effort will be included in the City's Report of Waste Discharge submittal, which is due to the Regional Board by March 4, 2012. The City will collect a "once per permit term" data under the Work Plan. It is assumed that this data will be submitted by City staff on the first day of the calendar month following this sampling event. Therefore, this task is complete and will not require additional scope or budget (now or in the future).

### **Project Budget**

The total fee for the scope of work described above is estimated to be \$284,400. A summary of the project costs by task is shown in Table 1. West Yost will perform all work on an hourly

basis at standard company charge rates, and will not exceed the estimated cost without written authorization. If additional budget is required to complete work identified herein, West Yost will request City authorization prior to exceeding the budget.

**Table 1. Estimated Fee for FY 10/11 Permit Implementation Support**

Task	West Yost Fee, dollars	Subconsultant Fee, dollars				Total Estimated Fee, dollars
		RBI	SSD	WKA	Well Contractor	
Task 1. Project Management	14,700	--	--	--	--	14,700
Task 2. State Board Support		--	--	--	--	--
Task 3. SJVAPCD Biosolids Rule Compliance	10,700	--	--	--	--	10,700
Task 4. Regulatory Program Management	25,300	--	5,500	--	--	30,800
Task 5. Land Application Monitoring Coordination	26,200	--	--	--	--	26,200
Task 6: Compliance Studies	19,500	--	--	--	--	19,500
Task 7: Toxicity Reduction Evaluation	15,500	78,600	--	--	--	94,100
Task 8: Title 22 Report	13,200	--	--	--	--	13,200
Task 9: Wintertime Irrigation Management Plan	--	--	--	--	--	--
Task 10: Temperature Study	--	--	--	--	--	--
Task 11: Industrial Influent Characterization Study	20,800	--	--	--	--	20,800
Task 12: Pond Freeboard Study	1,500	--	--	11,000	--	12,500
Task 13: Salinity Evaluation and Minimization Plan	3,700	--	--	--	--	3,700
Task 14: Background Groundwater Analysis	38,200	--	--	--	--	38,200
Task 15: Effluent Characterization Study	--	--	--	--	--	--
<b>Totals</b>	<b>189,300</b>	<b>78,600</b>	<b>5,500</b>	<b>11,000</b>	<b>--</b>	<b>284,400</b>

## Schedule

Work will begin upon notice to proceed from City, and is expected to be completed by August 1, 2011. A detailed schedule showing all of the permit compliance activities is also attached and will be maintained by West Yost throughout the duration of this contract. West Yost and our sub-consultants will provide additional services related to the studies needed



Mr. Charles E. Swimley Jr.

June 25, 2010

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under the renewed permit, subject to mutually agreeable adjustments to the scope, authorized budget, and schedule.

West Yost appreciates the opportunity to provide additional permitting services to the City. Please contact me if you have any questions or need additional information.

Sincerely,

WEST YOST ASSOCIATES

A handwritten signature in cursive script, appearing to read "Kathryn E. Gies".

Kathryn E. Gies  
Principal Engineer

KEG:ap

attachments

cc: Wally Sandelin, City of Lodi  
Del Kerlin, City of Lodi

RESOLUTION NO. 2010-130

A RESOLUTION OF THE LODI CITY COUNCIL AUTHORIZING  
ADDITIONAL TASK ORDER WITH WEST YOST ASSOCIATES FOR  
FISCAL YEAR 2010/11 TO PROVIDE PERMIT ASSISTANCE AND  
PREPARE VARIOUS STUDIES REQUIRED BY THE CITY'S  
WASTEWATER DISCHARGE PERMIT

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WHEREAS, the City's wastewater discharge permit includes requirements for a number of studies to be conducted or developed on various aspects of the City's wastewater treatment operations; and

WHEREAS, on November 4, 2009, Council authorized West Yost Associates to continue preparing ongoing work plans for various studies required by the permit; and

WHEREAS, West Yost Associates has furnished the City with a combined proposal to respond to the permit requirements for fiscal year 2010/11, including assisting City staff in regulatory program management; and

WHEREAS, the studies' monitoring efforts are required in the City's permit, and nonperformance would subject the City to significant fines; and

WHEREAS, the estimated cost for this work is \$284,400.

NOW, THEREFORE' BE IT RESOLVED that the Lodi City Council does hereby authorize an additional task order with West Yost Associates, of Davis, California, for fiscal year 2010/11 in the amount of \$284,400 to provide permit assistance and prepare various studies and reports required by the City's wastewater discharge permit issued by the State Central Valley Regional Water Quality Control Board.

Dated: August 4, 2010

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I hereby certify that Resolution No. 2010-130 was passed and adopted by the City Council of the City of Lodi in a regular meeting held August 4, 2010, by the following vote:

AYES: COUNCIL MEMBERS – Hansen, Hitchcock, Johnson, and  
Mayor Katzakian

NOES: COUNCIL MEMBERS – None

ABSENT: COUNCIL MEMBERS – Mounce

ABSTAIN: COUNCIL MEMBERS – None

  
RANDI JOHL  
City Clerk